

# **The New Renewables Act**

## **Section 1: Purpose of the Act**

- To facilitate sustainable development of energy supply in the interest of managing global warming, conserving nature and protecting the environment
- To help avoid conflicts involving fossil fuels and promote the development of technologies for the generation of electricity from renewable energy sources
- To foster technological progress

### **Targets:**

Share of renewable energy sources  
in total power supply:

At least 12.5 per cent      by the year 2010

At least 20 per cent      by the year 2020

## **Section 2: Scope of Application**

The Act stipulates that:

- Priority must be given to connecting to Germany's power grids installations that generate electricity from renewable energy sources and pit gas
- Grid operators must give priority to the purchase, transmission and the payment of compensation for such electricity
- Nation-wide equalisation

## **Section 3: Definitions**

Renewable energy sources encompass:

- hydropower
  - including wave, tidal, salt gradient and flow energy
- wind energy
- solar radiation energy
- geothermal energy
- energy from biomass
  - including biogas, landfill gas and gas from sewage treatment plants as well as biodegradable components of household and industrial waste

## **Section 4: Obligation to Purchase and Transmit**

## **Section 5: Obligation to Pay Compensation**

Grid operators are obliged to purchase electricity generated from renewable energy sources and to compensate the suppliers in accordance with the provisions in Sections 6 to 12 below.

Transmission grid operators are obliged to pay compensation for the amounts of electricity purchased by the grid operators, less the grid operating charges avoided.

## **Section 6: Compensation to be Paid for Electricity Generated from Hydropower**

Small installations (up to 5 MW): (former Act)

Up to 500 kW: 9.67 cents/kWh (7.67 cents)

As of 31 Dec. 2007, shall apply only to installations with barrages or weirs already built (entirely or in part) or yet to be built for purposes other than electricity generation, or built without continuous cross-river structure, thus achieving a sound ecological condition or substantially improving matters relative to the previous condition.

Proof: submission of statutory license

Up to 5 MW: 6.65 cents/kWh (6.65 cents)

No decline

Large installations (5 MW to 150 MW):

Applicable until 31 Dec. 2012

Compensation for capacity increase by

- up to 500 kW 7.67 cents/kWh
- up to 10 MW 6.65 cents/kWh
- up to 20 MW 6.10 cents/kWh
- up to 50 MW 4.56 cents/kWh
- over 50 MW 3.70 cents/kWh

Declining by 1 per cent annually, as of 1 Jan. 2005

## **Section 7: Compensation to be Paid for Electricity Generated from Landfill Gas, Pit Gas, and Gas from Sewage Treatment Plants**

		(former Act)
Up to 500 kW	7.67 cents/kWh	(7.67 cents)
Up to 5 MW	6.65 cents/kWh	(6.65 cents)

Pit gas installations over 5 MW: 6.65 cents/kWh

For electricity generated from gas that has been upgraded to natural gas quality or obtained by means of innovative technologies and fed into a grid, the compensation paid increases by 2 cents/kWh.

### **Innovative Technologies:**

Fuel cells, gas turbines, steam engines, ORC systems, systems using mixtures of several fluids, Stirling engines

Declining by 1.5 per cent p.a., as of 1 Jan. 2005

## **Section 8: Compensation to be Paid for Electricity Generated from Biomass**

Including electricity generated from pipeline gas  
(former Act)

Up to 150 kW	11.5 cents/kWh	(9.9 cents)
Up to 500 kW	9.9 cents/kWh	(9.9 cents)
Up to 5 MW	8.9 cents/kWh	(8.9 cents)
5 MW to 20 MW	8.4 cents/kWh	(8.4 cents)

If biomass burnt also includes class III and IV waste wood: 3.9 cents

Declining by 1.5 per cent p.a., as of 1 Jan. 2005

### **Additional Bonuses**

Cumulative

### **Renewable Resources Bonus:**

Renewable resources, liquid manure and distiller's wash (only from farm distilleries)

Up to 500 kW	6 cents/kWh	(0 cents)
Up to 5 MW (no wood)	4 cents/kWh	(0 cents)
Up to 5 MW	2.5 cents/kWh	(0 cents)

### **Combined Heat and Power (CHP) Bonus**

2 cents – applies to electricity fed in,  
while heat is being generated.

### **Innovative Technologies & Processes Bonus**

2 cents – providing that CHP is used

## **Innovative Processes**

Processes used to  
upgrade gas to  
natural gas quality  
After conversion of  
the biomass  
by thermochemical  
gasification  
or  
by dry fermentation

## **Innovative Technologies**

Fuel Cells  
Gas Turbines  
Steam Engines  
ORC Systems  
Installations Using  
a Mixture of  
Several Fluids  
Stirling Engines



## **Section 9: Compensation to be Paid for Electricity Generated from Geothermal Energy**

	New Act	Former Act
Up to 5 MW	15 cents/kWh	(8.95 cents)
Up to 10 MW	14 cents/kWh	(8.95 cents)
Up to 20 MW	8.95 cents/kWh	(8.95 cents)
Over 20 MW	7.16 cents/kWh	(7.16 cents)

Declining by 1 per cent p.a., as of 1 Jan. 2010

## Section 10: Compensation to be Paid for Electricity Generated from Wind Energy

Basic compensation	5.5 cents/kWh	(5.9 cents)
Increased compensation	8.7 cents/kWh	(8.8 cents)

The increased compensation will be paid for a period of at least 5 years. Subsequently, the compensation depends on the yield achieved, until 150 per cent of the reference installation is reached.

For other installations, the period will be prolonged by two months for every 0,75 per cent which their yield stays below 150 per cent of the reference yield.

### Repowering

(Replacing old installations, increase in output at least 3-fold):  
Period will be prolonged by two months for every 0,6 per cent which yield stays below 150 per cent of reference yield.

### Offshore:

Basic compensation 6.19 cents/kWh

Increased compensation 9.1 cents/kWh

Increased compensation will be paid during the first twelve years (formerly 9 years).

Special offshore provisions regarding the period during which the increased compensation is paid now apply until 2010 (formerly 2006).

Declining by 2 percent annually, as of 1 Jan. 2008.

## **Section 11: Compensation to be Paid for Electricity Generated from Solar Radiation Energy**

• Open-space installations	45.7 cents/kWh	(43.4)
• Roof-top PV arrays up to 30 kW	57.4 cents/kWh	(43.4)
• Roof-top PV arrays up to 100 kW	54.6 cents/kWh	(43.4)
• Roof-top PV arrays > 100 kW	54.0 cents/kWh	(43.4)
• Façade-mounted PV arrays up to 30 kW	62.4 cents/kWh	(43.4)
• Façade-mounted PV arrays up to 100 kW	59.6 cents/kWh	(43.4)
• Façade-mounted PV arrays > 100 kW	59.0 cents/kWh	(43.4)

The compensation model is graduated, involving intermediate levels: e.g. the compensation for electricity generated from a 60-kW roof-top installation amounts to 56.00 cents/kWh

Declining by 5 per cent annually, as of 1 Jan. 2005

Compensation for open-space installations will decline by 6.5 per cent annually, as of 1 Jan. 2006

## **Section 12: Common Provisions Applying to Purchase, Transmission and Compensation**

All compensation rates will apply for a period of 20 years.

Except for hydroelectric power stations:

Small power stations up to 5 MW: 30 years

Large power stations over 5 MW: 15 years

## **Section 13: Grid Costs**

The costs associated with connecting installations will be borne by the installation operators. The costs associated with upgrading the grid will be borne by the grid operators. They can add these costs to the grid operating charges.

## **Section 14: Nation-wide Equalisation Scheme**

Provisions designed to equalise the impact of the additional expense among Germany's various regions.

## **Section 15: Transparency**

Provisions designed to ensure disclosure of the nation-wide equalisation of electricity purchases and costs.

## **Section 16: Special Equalisation Provisions**

These provisions are designed to ease the burden on companies with particularly high electricity costs (cases of hardship)

Such relief will only be granted to companies

- whose electricity consumption is at least 10 GWh
- whose electricity costs amount to over 15 per cent of their gross value added

Relief is also available for railway companies, up to a total maximum volume of € 20 million

The total relief volume must not exceed 10 per cent of the total cost volume allocated.

## **Section 17: Certificate of Origin**

Document that certifies that electricity was generated from renewable energy sources.

## **Section 18: Double Marketing Prohibition**

Electricity generated from renewable energy sources or pit gas, as well as biogas fed into gas pipelines, must not be sold several times to generate additional revenue other than the compensation paid under the Renewables Act.

This limitation is necessary particularly in view of the emissions trading scheme that is about to be introduced.

## **Section 19: Clearing Centre**

The German Federal Ministry of the Environment may establish a clearing centre for the settlement of disputes.

## **Section 20: Progress Report**

By 31 Dec. 2007, and thereafter every 4 years, the Federal Ministry of the Environment shall submit a report on the progress achieved.

## **Section 21: Transitional Provisions**

This section deals with various aspects of existing installations and new installations as well as their transitional provisions, e.g. the fact that the renewable resources bonus will also apply to all existing installations.

## **Article Amending the CHP Act**

The following provision for combined heat and power (CHP) installations of up to 50 kW will be introduced in the CHP Act:

The basic compensation paid will be the average price of base-load electricity at the Leipzig Electricity Exchange during the previous quarter.

The CHP bonus of 2.4 cents currently (i.e. 2004 and 2005) will be added to this price.